

REMARKS

Claims 1-5 and 7-27 are pending in this application. By this Amendment, claims 1, 2, 5, 7, 8, 11, 13, 18, 22 and 23 are amended. No new matter is added.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issue requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution); (c) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (d) place the application in better form for appeal, should an appeal be necessary.

The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Specifically, the Examiner indicates on page 9 through page 10 that Applicant's arguments as to differences between Caklovic and the Applicant's invention are not claimed, although such differences were specifically discussed, and Caklovic distinguished, on page 9, lines 9-12 of the September 5, 2003 filed Amendment.

Further, during the December 30, 2003 personal interview, clarifying language was discussed with Examiner Johnson, which is incorporated into the claims by this Amendment. Thus, entry of the amendment is respectfully requested.

I. REPLY TO REJECTIONS

A. §102(e) Rejection

On page 2, item 2 of the Office Action, claims 1-5, 7-10, 13 and 16-22 are rejected under 35 U.S.C. §102(e) over U.S. 5,974,179 to Caklovic. The rejection is respectfully traversed.

It is respectfully submitted that Caklovic fails to disclose a method comprising selecting a set of N raster lines extending in the first direction, and reformatting the image by

successively interleaving only a single corresponding pixel of each of the N raster lines extending in the second direction, as recited in claims 1 and 18; or a binary data reformatter that reformats raster image data of the original image by successively interleaving only a single corresponding pixel of the original image extending in the second direction, as recited in claim 7; or reformatting binary image data into reformatted image data by successively interleaving only a single corresponding pixel of each of the N selected raster lines, as recited in claim 13, or a method for decompressing compressed image data to form a restored image, comprising distributing each bit of at least one byte to only a single corresponding pixel in each N raster line of the restored image, as recited in claim 5. That is, Caklovic fails to disclose working with only a single corresponding pixel for each raster line as recited in the claims.

In other words, according to the claims, a first reformatted interleaved data groups only the first pixels in each of the selected raster lines, a second reformatted interleaved data groups only the second pixels in each selected raster line and so on. Therefore, no two pixels are selected from a single selected raster line to form a reformatted group. In this way, only a single corresponding pixel is interleaved, as described, for example, in page 5, lines 18-28 of the specification.

Caklovic chooses more than one pixel from each selected raster line. Because Caklovic selects more than one pixel from each selected raster line, there is not a single corresponding pixel from each of the selected raster lines. Caklovic cannot select only a single corresponding pixel because Caklovic specifically exploits redundancies in both the vertical and horizontal directions in order to use a dictionary-based compression technique where a previously encountered bit pattern is identified by using a dictionary code that identifies that particular bit pattern rather than the bit pattern itself. Therefore, by identifying

redundancies in the bit pattern extending in both directions, i.e., selecting more than a single pixel, Caklovic is able to condense the information into smaller bits. In order to maximize the occurrence of redundancies, Caklovic must extend in both the vertical and horizontal directions and thereby select more than a single pixel from each of the selected raster lines (col. 1, lines 30-40, lines 49-57).

In order to accomplish maximizing the redundancies, Caklovic discloses rearranging the memory image of a binary image such that the pixels in two dimensional adjoining pixel areas, rather than consecutive pixels on an image line, are sequentially read (col. 4, lines 29-34, Figure 3). This necessarily requires Caklovic to choose more than two pixels from each raster line.

For example, Caklovic rearranges the image data represented in Figure 1 to the image data represented in Figure 2. Furthermore, the data represented in Figure 7A is rearranged into data represented in Figure 7B. Both rearrangements of Caklovic, data extending in a horizontal direction is rearranged to extend in both a horizontal and a vertical direction so that redundancies in both directions are utilized. In the process, more than one pixel from each raster line is chosen, and there is not only a single correspondence between each pixel and each raster line. Therefore, Caklovic fails to reformat by successively interleaving only a single corresponding pixels, as recited in independent claims 1, 7, 13 and 18, or distributing each bit of the at least one byte to only a single corresponding pixels in N raster lines of the restored image as recited in independent claim 5. Therefore, claims 1, 5, 7, 13 and 18 are patentable over Caklovic. Claims 2-4, which depend from claim 1, claims 8-10, which depend from claim 7, claims 16-17, which depend from claim 14 and claims 19-22, which dependent from claim 18, are likewise patentable over Caklovic for the reasons stated above, as well as for the additional features they recite. Withdrawal of the rejection of claims 1-5,

7-13 and 16-22 is respectfully requested.

B. §103(a) Rejection

On page 6, item 4 of the Office Action, claims 11-12, 14-15 and 23-27 are rejected under 35 U.S.C. §103(a) over Caklovic. The rejection is respectfully traversed.

Similar to the arguments presented above, Applicant respectfully submits that Caklovic fails to disclose a decompressor that decompresses the decompressed interleave data that was reformatted by successively interleaving only a single corresponding pixel of the data, as recited in claim 11. Further, Caklovic fails to disclose a binary data reformatter that reformats raster image data of the original image by successively interleaving only a single corresponding pixel of the original image data, as recited in claim 23.

As discussed above, Caklovic fails to disclose successively interleaving only a single corresponding pixel. Therefore, claims 11 and 23 are patentable over Caklovic.

Claim 12, which depends from claim 11, and claims 24-27, which depend from claim 23, are also patentable over Caklovic for the reasons stated above as well as for the additional features they recite.

Further, claims 14 and 15 are also patentable at least in view of the patentability of claim 13 as discussed above, from which they depend, as well as for the additional features they recite. Withdrawal of the rejection is respectfully requested.

II. CONCLUSION


For the reasons stated above, Applicant submits that this application is in condition for allowance. As discussed at the personal interview, Caklovic does not disclose the subject matter of the revised claims. Further, it is respectfully submitted that it would not have been obvious to modify Caklovic to achieve the claimed subject matter because, as discussed

above, Caklovic specifically teaches selecting multiple pixels from each raster line to exploit redundancies in both vertical and horizontal directions.

Favorable reconsideration and prompt allowance of claims 1-5 and 7-27 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the Applicant's undersigned representative at the telephone number set forth below.

Respectfully submitted,



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